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**AB1103 THE IMPORTANCE OF ADEQUATE SCREENING TO AVOID FALSE POSITIVES IN THE DIAGNOSIS OF RHEUMATOID ARTHRITIS**

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**Background:** The lack of expertise and skills in the diagnosis of in rheumatoid arthritis (RA) in primary level of Colombian medical centers can cause misdiagnosis of rheumatic diseases. Due to this issue in a specialized center in RA we established a multidisciplinary model and a strict disease management algorithm to diagnose properly our patients; as a consequence we have achieved the accurate diagnosis of great proportion of patients that were false positives diagnosed initially as RA.

**Objectives:** The aim of this study was to show effectiveness and accuracy of a screening method to avoid false-positive diagnosis of RA in a cohort of patients with supposed diagnosis of RA.

**Methods:** During two years we evaluated patients with presumptive diagnosis of RA. We conducted a cross-sectional study; we included patients who were referred from primary care centers to a RA specialized center in a 24 month period with presumptive diagnosis of (RA). Each patient was evaluated to confirm or rule-out diagnosis of RA as follows: a rheumatologist fulfilled a complete medical record, including joint counts; it was assessed rheumatoid factor and anti-citrullinated antibodies, and other laboratories depending on each case. Also were made x-rays of hands and feet, and in some cases of persistent doubt about the diagnosis was requested comparative MRI of hands or/and feet. Descriptive epidemiology was performed.

**Results:** Between 2015 and 2016 6813 patients were evaluated in our specialized center, in 76% of cases RA was confirmed, the remaining 1593 patients (24%) had a wrong diagnosis of RA; of these misdiagnosed patients, (87%) were female, and 205 (13%) male, with an average age of 62±12 years. Between differential diagnosis which were found in this cohort of misdiagnosed patients: osteoarthritis in 849 patients (63.3%), Sjögren syndrome (7%) Systemic lupus erythematosus (6%) the remaining 30% of patients had conditions such as gout, psoriasis, osteoporosis, myalgia, soft tissue diseases among others. The majority of patients with wrong diagnosis took DMARDs (23%), calcium (11%), biologics (10%) acetaminophen (9%), neuropathy medications (7%), acetaminophen plus opioids (5%), osteoporosis medications (5%), opioids (4%), glucosamine (4%), diacerein (3%), the remaining patients took medications such as NSAID, glucosamine, antigout agents, gastritis drugs, among others.

**Conclusions:** The results of this program show that almost 25% patients with presumptive RA diagnosis are misdiagnosed; this is evidence that can be extrapolated to primary care centers in Colombia. The most important confounding diagnosis was osteoarthritis and many patients were receiving DMARDs for treatment. For this reason there is an urgent need of education strategies for primary care physicians and the implementation of centers of excellence in RA, in order to conduct a proper diagnose and avoid clinical and health economics consequences of misdiagnosis.

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**AB1104 COST-EFFECTIVENES ANALYSIS OF TNF INHIBITORS USE COMPARED TO DMARDs IN THE FATAL AND NONFATAL ACUTE CORONARY ISCHEMIC EVENT**

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**Background:** Epidemiological studies have established that rheumatoid arthritis is

associated with an increase in cardiovascular disease<sup>1,2</sup>. The evaluation of tumour necrosis factor inhibitors (TNFi) on the reduction of the risk of acute myocardial infarction and death due to cardiovascular causes has shown promising results<sup>3</sup>. The economic evaluation for these outcomes are not established yet.

**Objectives:** To evaluate the cost-effectiveness of TNFi versus disease-modifying antirheumatic drugs (Dmards) to avoid a new case of acute ischemic heart disease and death in rheumatoid arthritis patients.

**Methods:** A cost-effectiveness analysis (CEA) was performed using a Markov model 6-month transition cycle, with time horizon of 30 years, under the Brazilian public healthcare system perspective. Costs are expressed in 2015 Reais and effectiveness measures are new cases of acute ischemic coronary disease and cardiovascular death.

**Results:** The average cost in 30 years of Dmards and TNFi was 14,291,105.28 and 96,151,873.86 Reais, respectively. The incremental effectiveness was 2.69 cases of coronary artery disease and consequent incremental cost-effectiveness ratio (ICER) of 30,527,502.27 Reais per new cases avoided, while for cardiovascular death, incremental effectiveness was 1.33 and an ICER of 61,634,231,69 Reais per new cases avoided. The univariate analysis identified that the most relevant parameter in the ICER on both outcomes was the TNFi drug. The sensitivity analysis established that, in order to, reach the amount of willingness to pay (WTP) per semester to avoid an acute myocardial infarction, the average cost of TNFi should be 1,337.47 Reais per case avoided and the average cost for the cardiovascular death avoidance could be 954.22 Reais. All the analyzes performed establish an unfavorable relationship of the drug treatment strategy with TNFi.

**Conclusions:** The findings of the CEA among patients with rheumatoid arthritis for cardiovascular outcomes when compared to the strategy of TNFi drug treatment with the dominant strategy Dmards after the first 6 months of exposure point out an unfavorable relationship, surpassing the amount of expenses recommended by the Ministry of Health of Brazil in the year 2015.

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**AB1105 FACTORS IMPACTING PATIENTS' DECISION TO START TREATMENT VARY BY RACE**

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**Background:** Previous research has found that young minority women tend to be more risk averse compared to their Caucasian counterparts. The reasons underlying these differences, however, are not understood.

**Objectives:** The objective of this study was to examine whether factors influencing perceived treatment importance vary by race.

**Methods:** Women between the ages of 20 and 45 completed a survey. The survey recorded sociodemographic data, trust in healthcare systems and beliefs in medications. It also included a hypothetical scenario in which subjects were asked to rate the importance of taking a medication for a patient with joint pain, migraines and fatigue that benefits 70% of people and is well tolerated except for the rare risk (1 per 100,000) of a neurologic disease that may cause weakness, trouble with vision and numbness. Associations between patient characteristics, medication beliefs, and trust with perceived importance of taking the medication were evaluated for each race. Variables found to be statistically significant were subsequently evaluated using multiple linear regression.

**Results:** 299 women completed the survey. Baseline characteristics by ethnicity are described in Table 1. Hispanic women had more negative medication beliefs than did Non-Hispanic Whites, and both Non-Hispanic Black and Hispanic

Table 1. Patient characteristics by race

Variable	Non-Hispanic White	Non-Hispanic Black	Hispanic	P value
Age (mean, SD)	34.1 (7.2)	35.2 (8.4)	32.8 (8.6)	0.1
Poor self-reported health (%)	12	14	12	0.9
Some college education (%)	75	61	43	<0.01
Income <12,000/year (%)	23	33	34	0.2
Difficulty paying for meds (%)	68	58	60	0.3
Medication beliefs (mean, SD)	20.6 (4.6)	21.6 (4.4)	22.3 (4.7)	<b>0.04</b>
Trust (mean, SD)	27.9 (5.5)	28.6 (5.7)	29.1 (5.5)	0.3
Hopeful (mean, SD)	4.2 (1.6)	3.5 (1.7)	3.6 (1.7)	<0.01
Worried (mean, SD)	4.6 (1.6)	4.8 (1.8)	5.1 (1.6)	0.2
Important (mean, SD)	5.3	5.6	5.5	0.3